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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/811,161
Filing Date: March 16, 2001
Appellant(s): STRAHM ET AL.

Hwa C. Lee
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 09/15/2008 and 11/07/2008 appealing from the Office action mailed 04/14/2008.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 6, 198 , 920	Doviak et al.	03-2001
US 6, 614, 808	Gopalakrishna	09-2003
US 2005/0132049 A1	Inoue et al.	06-2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7, 9, 19, 20, 22-25, 27-32, 38-45 and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Doviak et al. (hereinafter Doviak) (US 6, 198 , 920).

Referring to claim 1,

Doviak teaches a method (Fig. 30) comprising:

at a device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable

device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks."), opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection (col. 34, line 19-55);

at a device(Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks., opening a second connection to the server (col. 34, line 19-55);

selecting, from connections including the second connection, at least one connection to be an active connection and other connections as passive connections (col. 34, line 56 through col. 35, line 43);

communicating information via the active connection using an information exchange protocol based on a type of active connection;. (col. 36 , line 26-34, col. 33,

line 14-41, "As noted above, the Network Interfaces 214 provide connections to various types of networks. These networks may be wired (for example Public Switched Telephone Network 58), or wireless (for example Cellular Digital Packet Data (CDPD)). The following non-limiting list includes networks that may be interfaced to the Router 200 by the Network Interfaces 214A-D: private voice radio including conventional and trunked radios (e.g., using MDC 54), Cellular Digital Packet Data (CDPD), Spread Spectrum (e.g., direct sequence and channel-hop), GSM, GPS receiver, satellite transponder, RDI (Ericsson) interface, AMPS, RAM Mobile (Mobitex), RS232, RS485, Angel (AT&T), Asynchronous Transfer Method (ATM), Integrated Services Digital Network (ISDN), public switched telephone network (PSTN (POTS) telephone network), Ethernet, Ardis, Personal Communications Services (PCS), and any other network which is either transparent or operates using a specific protocol.

The specific protocols to the above-listed networks are implemented in the Network Interfaces 214A-D. These protocols may be very different, and therefore incompatible with each other. Additionally, a translation device may be provided in each Network Interface 214 to translate between IP and the particular network protocol. By providing such a translation device, the Application or Device 52 can use IP data regardless of the particular network the Application or Device 52 is actually using.").

monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections to determine whether to open one or more additional connections close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more

of the passive connections as the active connection. (Doviak in reference to Fig. 30 as stated above and in col. 34, line 19-55, "The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health. The above interrogation process may be accomplished by monitoring a timer tick (provided by the switch microprocessor), which instructs the Network Availability 210 to query each Network Interface 214. When the timer tick occurs, the Network Availability 210 function interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.

The Network Availability 210 of each Network Interface 214 is determined in a manner specific to the particular interfaced Network. For example, if the Network is CDPD, the Network Availability 210 interrogates the network to determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. For example, in the NovaTel CDPD Network Interface a RSSI of -100 dBm will provide for good data transmission qualities. Thus, if the Network Availability 210 function queries

the NovaTel CDPD Network Interface for the RSSI, and the response is -110 dBm, then the signal is too weak for error-free transmission, and therefore cannot be used at this time. This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be."

Additionally, Doviak's teaches at col. 34, line 56-61, "The User Configuration 208 block is used to define user configurable parameters by which the Router Core 204 selects the "current Network" and the "next Network". The Router parameters may include the date and time (e.g., yr-mo-da, hh:mm:ss), and the Network Interface 214 installed in each of the internal slots of the Router 200.", and at col. 35, line 37-44, "The User Configuration 208 function provides the user with the capability to instruct the Router 200 how to select a particular Network. These metrics may include, but are not limited to: which Network is connected to which Router port, time of day and date, priority (switching sequence) of each Network, cost per packet of each Network, and preferred default Network."

Doviak elucidates the claim limitations as follows:

monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections to determine whether ("Network Availability 210 function interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.", **Note:**

Interrogation determines the status of each network interface 214, as such is monitoring, according the user configuration, as such a predetermined set of parameters corresponding to one or more characteristics of the active, that is “current network” and “passive connections” that are not active but being continually interrogated per the user configuration.) to open one or more additional connections close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection. (This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be.”)

Referring to claim 2,

Doviak teaches the method of claim 1 further comprising communicating information configured for the information exchange protocol using the first connection as the active connection prior to selecting the second connection as the active connection. (col. 36 , line 26-34, “The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36. Generally, the process helps to guarantee that the mobile user always has access to a Network for sending and receiving data. This process also allows what is known now as "seamless roaming". This means that the mobile user can move between Networks and continue to have reliable data transmission on the different Networks.”).

Referring to claim 3,

Doviak teaches the method of claim 1 in which the second connection is opened prior to establishing the information exchange protocol. (col. 36 , line 26-34, “The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36. Generally, the process helps to guarantee that the mobile user always has access to a Network for sending and receiving data. This process also allows what is known now as "seamless roaming". This means that the mobile user can move between Networks and continue to have reliable data transmission on the different Networks.”).

Referring to claim 4,

Doviak teaches the method of claim 1 in which a single one of the connections is selected as the active connection. (col. 36 , line 26-34, “The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36. Generally, the process helps to guarantee that the mobile user always has access to a Network for sending and receiving data. This process also allows what is known now as "seamless roaming". This means that the mobile user can move between Networks and continue to have reliable data transmission on the different Networks.”).

Referring to claim 5,

Doviak teaches the method of claim 1 in which two or more connections are selected as the active connection.(col. 34, line 37-55, “The Network Availability 210 of each Network Interface 214 is determined in a manner specific to the particular interfaced Network. For example, if the Network is CDPD, the Network Availability 210

interrogates the network to determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. For example, in the NovaTel CDPD Network Interface a RSSI of -100 dBm will provide for good data transmission qualities. Thus, if the Network Availability 210 function queries the NovaTel CDPD Network Interface for the RSSI, and the response is -110 dBm, then the signal is too weak for error-free transmission, and therefore cannot be used at this time. This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be.")

Referring to claim 6,

Doviak teaches the method of claim 1 in which the second connection includes a wireless connection(col. 34, line 36-55).

Referring to claim 7,

Doviak teaches a method (Fig. 30) comprising:

at a device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device

may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks."), opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection based on a type pf the first connection (col. 34, line 19-55, col. 36 , line 26-34, col. 33, line 14-41, "As noted above, the Network Interfaces 214 provide connections to various types of networks. These networks may be wired (for example Public Switched Telephone Network 58), or wireless (for example Cellular Digital Packet Data (CDPD)). The following non-limiting list includes networks that may be interfaced to the Router 200 by the Network Interfaces 214A-D: private voice radio including conventional and trunked radios (e.g., using MDC 54), Cellular Digital Packet Data (CDPD), Spread Spectrum (e.g., direct sequence and channel-hop), GSM, GPS receiver, satellite transponder, RDI (Ericsson) interface, AMPS, RAM Mobile (Mobitex), RS232, RS485, Angel (AT&T), Asynchronous Transfer Method (ATM), Integrated Services Digital Network (ISDN), public switched telephone network (PSTN (POTS) telephone network), Ethernet, Ardis, Personal Communications Services (PCS), and any other network which is either transparent or operates using a specific protocol.

The specific protocols to the above-listed networks are implemented in the Network Interfaces 214A-D. These protocols may be very different, and therefore incompatible with each other. Additionally, a translation device may be provided in each Network Interface 214 to translate between IP and the particular network protocol. By providing such a translation device, the Application or Device 52 can use IP data regardless of the particular network the Application or Device 52 is actually using.");

at the device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks."), opening a second connection to the server (col. 34, line 19-55);

selecting from the opened connections including the second connection, one or more connections to be an active connection (col. 34 through col. 35, line 43, Doviak in reference to Fig. 30 as stated above and in col. 34, line 19-55, "The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; **if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health.** The above interrogation process may be accomplished by monitoring a timer tick (provided by the switch microprocessor), which instructs the Network Availability 210 to query each Network Interface 214. When the timer tick occurs, the Network Availability 210 function interrogates each Network Interface 214 as noted

above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.

The Network Availability 210 of each Network Interface 214 is determined in a manner specific to the particular interfaced Network. For example, if the Network is CDPD, the Network Availability 210 interrogates the network to determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. For example, in the NovaTel CDPD Network Interface a RSSI of -100 dBm will provide for good data transmission qualities. Thus, if the Network Availability 210 function queries the NovaTel CDPD Network Interface for the RSSI, and the response is -110 dBm, then the signal is too weak for error-free transmission, and therefore cannot be used at this time. This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be.");

communicating information configured for the information exchange protocol . that was established for the first connections using the active connection; (col. 36, line 26-34, (col. 36 , line 26-34, col. 33, line 14-41, “As noted above, the Network Interfaces 214 provide connections to various types of networks. These networks may be wired (for example Public Switched Telephone Network 58), or wireless (for example Cellular Digital Packet Data (CDPD)). The following non-limiting list includes networks that may

be interfaced to the Router 200 by the Network Interfaces 214A-D: private voice radio including conventional and trunked radios (e.g., using MDC 54), Cellular Digital Packet Data (CDPD), Spread Spectrum (e.g., direct sequence and channel-hop), GSM, GPS receiver, satellite transponder, RDI (Ericsson) interface, AMPS, RAM Mobile (Mobitex), RS232, RS485, Angel (AT&T), Asynchronous Transfer Method (ATM), Integrated Services Digital Network (ISDN), public switched telephone network (PSTN (POTS) telephone network), Ethernet, Ardis, Personal Communications Services (PCS), and any other network which is either transparent or operates using a specific protocol.

The specific protocols to the above-listed networks are implemented in the Network Interfaces 214A-D. These protocols may be very different, and therefore incompatible with each other. Additionally, a translation device may be provided in each Network Interface 214 to translate between IP and the particular network protocol. By providing such a translation device, the Application or Device 52 can use IP data regardless of the particular network the Application or Device 52 is actually using."); and

monitoring the opened connections for one or more parameters selected from a group consisting of transmittal rate, latency, and cost of transmittal; and (col. 35, line 13-43, "Other user configurable parameters include: the priority of each internal slot, (e.g., 1 to 6) where the slot with priority 1 is the default startup slot and Network; **baud rate** of each slot (a default rate may be set to 9600 bits per second, but may be configured to be any standard **baud rate**, divisible by 300, up to 115.2 kilo bits per second); **cost** per kilobyte per slot (e.g., $0.xx per kilobyte where the least costly slot

that **is available and highest priority** will be default); protocol per slot (e.g., none, Point to Point (PPP), Serial Line Internet Protocol (SLIP), Hayes "AT" commands, transparent); slot mode, for example, transparent, PSTN, cellular, IP, receive only; slot name or address or phone number; slot to be used for diagnostics (e.g., default may be set to slot 2); slot muting to be used (e.g., none, PL, DTMF, other); number of retry transmissions per Network Interface (per slot) before declaration of Network Interface failure (e.g., 0-10); if slot Network Interface needs to be configured before it can operate (e.g., y,n); slot to be used for remote display (e.g., default may be set to slot 2); slot to be used for Device or Application 52 (e.g., a connection to a mobile computer; default is slot 1); and frequency at which Network Availability 210 is checked (e.g., default may be set to five seconds). Other user configurable parameters may be introduced and configured as necessary.")

based on the monitored one or more parameters, determining whether to open one or more additional connections; reselect the active connection to optimize the monitored one or more parameters; and close one or more additional connections. Doviak in reference to Fig. 30 as stated above and in col. 34, line 19-55, "The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health. The above interrogation process may be accomplished

by monitoring a timer tick (provided by the switch microprocessor), which instructs the Network Availability 210 to query each Network Interface 214. When the timer tick occurs, the Network Availability 210 function interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.

The Network Availability 210 of each Network Interface 214 is determined in a manner specific to the particular interfaced Network. For example, if the Network is CDPD, the Network Availability 210 interrogates the network to determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. For example, in the NovaTel CDPD Network Interface a RSSI of -100 dBm will provide for good data transmission qualities. Thus, if the Network Availability 210 function queries the NovaTel CDPD Network Interface for the RSSI, and the response is -110 dBm, then the signal is too weak for error-free transmission, and therefore cannot be used at this time. This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be."

Additionally, Doviak's teaches at col. 34, line 56-61, "The User Configuration 208 block is used to define user configurable parameters by which the Router Core 204 selects the "current Network" and the "next Network". The Router parameters may

include the date and time (e.g., yr-mo-da, hh:mm:ss), and the Network Interface 214 installed in each of the internal slots of the Router 200.", and at col. 35, line 37-44, "The User Configuration 208 function provides the user with the capability to instruct the Router 200 how to select a particular Network. These metrics may include, but are not limited to: which Network is connected to which Router port, time of day and date, priority (switching sequence) of each Network, cost per packet of each Network, and preferred default Network."

Doviak elucidates the claim limitations as follows:

based on the monitored one or more parameters, determining whether to open one or more additional connections; ("Network Availability 210 function interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.", **Note:** Interrogation determines the status of each network interface 214, as such is monitoring, according the user configuration, as such a predetermined set of parameters corresponding to one or more characteristics of the active, that is "current network" and the connections that are not active but being continually interrogated per the user configuration.) to open one or more additional connections, reselect the active connection to optimize the monitored one or more parameters; and close one or more additional connections. (This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next

Network" should be." Note: reselection is a process of determination that decides that the "the "current Network" should remain the "current Network".)

Referring to claim 9,

Doviak teaches the method of claim 1, 4, or 6 in which the information includes a command that is effected by a module on the server. (col. 30, line 35-48).

Referring to claims 19 and 20,

Claims 19 and 20 are claims to an apparatus comprising a processor and software configured to cause the processor to carry out the method of claim 7. Therefore claims 19 and 20 are rejected for the reasons set forth for claims 19 and 20.

Referring to claim 22,

Claim 22 is a claim to the apparatus comprising a processor and software configured to cause the processor to carry out the method of claim 9. Therefore claim 22 is rejected for the reasons set forth for claim 9.

Referring to claim 23,

Claim 23 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine to perform the method of claim 1. Therefore claim 23 is rejected for the reasons set forth for claim 1.

Referring to claim 24,

Claim 24 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine to perform

the method of claim 4. Therefore claim 24 is rejected for the reasons set forth for claim 4.

Referring to claim 25,

Claim 24 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine configuration of claim 20. Therefore claim 25 is rejected for the reasons set forth for claim 20.

Referring to claim 27,

Claim 27 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine to perform the method of claim 9. Therefore claim 27 is rejected for the reasons set forth for claim 9.

Referring to claim 28,

Claim 28 is a claim to a system performing the method of claim 1. Therefore claim 28 is rejected for the reasons set forth for claim 1.

Referring to claim 29,

Claim 29 is a claim to a system performing the method of claim 6. Therefore claim 29 is rejected for the reasons set forth for claim 6.

Referring to claim 30,

Claim 30 is a claim to a system including the apparatus of claim 20. Therefore claim 30 is rejected for the reasons set forth for claim 20.

Referring to claims 31 and 32,

Doviak teaches the system of claim 28 in which the device is further configured to select, from the connections, a connection to be a passive connection, and system of claim 31 in which the passive connection is maintained while at least some of the information is communicated using the active connection. (col. 36, line 6-36).

Referring to claim 38,

Doviak teaches the method of claim 1 in which the device detects its own geographic position and compares its geographic position to the range of one of the connections. (col. 36, line 26-34, “The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36. Generally, the process helps to guarantee that the mobile user always has access to a Network for sending and receiving data. This process also allows what is known now as "seamless roaming". This means that the mobile user can move between Networks and continue to have reliable data transmission on the different Networks.”)

Referring to claims 39 and 40,

Doviak teaches the method of claim 1 in which the device retains outgoing information until reception is acknowledged, and the method of claim 39 in which the

device monitors a buffer that retains outgoing information to determine whether to transmit additional outgoing information.(col. 31, line 9-19)

Referring to claim 41,

Doviak teaches the method of claim 1 in which the device implements

software-based application sockets to connect application input/output streams to the server. (Figs. 33-36).

Referring to claims 42, 43 and 44,

Doviak teaches the method of claim 7 in which the parameter comprises transmittal rate, and the method of claim 7 in which the parameter comprises latency, and the method of claim 7 in which the parameter comprises cost of transmittal. (col. 35, line 13-43).

Referring to claim 45,

Doviak teaches a method (Fig. 30) comprising:

at a device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc.,

necessitating the use of multiple Networks."), opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection (col. 34, line 19-55);

at a device(Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks., opening a second connection to the server (col. 34, line 19-55);,

selecting, from connections including the second connection, one or more connections to be an active connection and another to be passive connection (col. 34, line 56 through col. 35, line 43, col. 36, line 6-36);

communicating information using the active connection, wherein the same network. Security, and compression protocols and parameters are used for information exchange as for the first connections while maintaining the passive connection. (col. 39, line 26-65, col. 35, line 13-43, col. 33, line 57-col. 34, line 3).

monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections to determine whether to open one

or more additional connections close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection. (Doviak in reference to Fig. 30 as stated above and in col. 34, line 19-55, "The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health. The above interrogation process may be accomplished by monitoring a timer tick (provided by the switch microprocessor), which instructs the Network Availability 210 to query each Network Interface 214. When the timer tick occurs, the Network Availability 210 function interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.

The Network Availability 210 of each Network Interface 214 is determined in a manner specific to the particular interfaced Network. For example, if the Network is CDPD, the Network Availability 210 interrogates the network to determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. For

example, in the NovaTel CDPD Network Interface a RSSI of -100 dBm will provide for good data transmission qualities. Thus, if the Network Availability 210 function queries the NovaTel CDPD Network Interface for the RSSI, and the response is -110 dBm, then the signal is too weak for error-free transmission, and therefore cannot be used at this time. This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be."

Additionally, Doviak's teaches at col. 34, line 56-61, "The User Configuration 208 block is used to define user configurable parameters by which the Router Core 204 selects the "current Network" and the "next Network". The Router parameters may include the date and time (e.g., yr-mo-da, hh:mm:ss), and the Network Interface 214 installed in each of the internal slots of the Router 200.", and at col. 35, line 37-44, "The User Configuration 208 function provides the user with the capability to instruct the Router 200 how to select a particular Network. These metrics may include, but are not limited to: which Network is connected to which Router port, time of day and date, priority (switching sequence) of each Network, cost per packet of each Network, and preferred default Network."

Doviak elucidates the claim limitations as follows:

monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections to determine whether ("Network Availability 210 function interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206,

which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.", **Note:** Interrogation determines the status of each network interface 214, as such is monitoring, according the user configuration, as such a predetermined set of parameters corresponding to one or more characteristics of the active, that is "current network" and "passive connections" that are not active but being continually interrogated per the user configuration.) to open one or more additional connections close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection. (This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be.")

Referring to claim 48,

Doviak teaches the method of claim 45 that comprises monitoring the connections for a parameter selected from the group consisting of signal strength, transmittal rate, latency, cost of transmittal, and connection integrity. (col. 35, line 13-43)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 8, 10, 21, 26, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doviak et al. (hereinafter Doviak) (US 6, 198 , 920) in view of Gopalakrishna (US 6,614, 808).

Referring to claims 8 and 10,

Keeping in mind the teachings of Doviak as stated above, Doviak fails to teach the method of claim 1 in which the information is communicated in packets that include aggregated information for more than one application, and the method of claim 8 in which, the extent of aggregation for each application in the packets that include aggregated information for more than one application is dependent on an indicator of priority for information exchange associated with each application.

Gopalakrishna teaches the information is communicated in packets that include aggregated information for more than one application, and (col. 5, line 40-47, FIG. 2 shows interactions among various layers associated with the source system 110 and the target system 111 in generating aggregated packets and in demultiplexing the aggregated packets. A plurality of client sessions 118 and 119 send a plurality of session data packets which are combined into a session layer aggregated packet 120. The client sessions 118 and 119 can be database sessions communicating queries to and responses from a database server.") the method of claim 8 in which, the extent of aggregation for each application in the packets that include aggregated information for more than one application is dependent on an indicator of priority for information

exchange associated with each application. (col. 6, line 34-44, "An exemplary data structure of the TLPDU 210 is shown in more detail in FIG. 4. The TLPDU 210 contains a field 222 for storing one or more flags such as a request type flag. Also, the TLPDU 210 contains a field 224 for storing a session number or client identifier. A field 226 stores packet sequence number information, while a field 228 stores the TLPDU size information. The optional field 226 is useful in reassembling the packets into a predetermined sequence, when more than one transport is used. The field 228 provides more information on the TLPDU size.")

Therefore, it would have been obvious to one of ordinary skill in this art at the time the invention was made to implement the teachings of Gopalakrishna into the system of Doviak because, as stated by Gopalakrishna, "The protocols discussed above significantly reduce the number of operating system communication calls. Correspondingly, the number of communication calls necessary to send and receive a given number of network packets between the source system (concentrator) and the target system (server) processes across the network is also reduced due to packet aggregation. The resource requirements of the server process will be reduced proportional to amount of average aggregation measured. The reduced number of communication calls needed in the Server will improve the scalability of the server in a client-server architecture. For small sized packets, packet aggregation helps improving the network bandwidth due to the reduced packet/frame header overhead at the transport or lower layers. Moreover, in networks with large MTU (Maximum Transmission Unit) aggregating small packets reduce communication latency."

Referring to claim 21,

Claim 21 is a claim to the apparatus comprising a processor and software configured to cause the processor to carry out the method of claim 8. Therefore claim 21 is rejected for the reasons set forth for claim 8.

Referring to claim 26,

Claim 26 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine configuration of claim 21. Therefore claim 26 is rejected for the reasons set forth for claim 21.

Referring to claim 46,

Keeping in mind the teachings of Doviak as stated above, Doviak fails to teach the method of claim 45 in which the information is communicated in packets that include aggregated information for more than one application.

Gopalakrishna teaches the information is communicated in packets that include aggregated information for more than one application, and (col. 5, line 40-47, FIG. 2 shows interactions among various layers associated with the source system 110 and the target system 111 in generating aggregated packets and in demultiplexing the aggregated packets. A plurality of client sessions 118 and 119 send a plurality of session data packets which are combined into a session layer aggregated packet 120. The client sessions 118 and 119 can be database sessions communicating queries to and responses from a database server.") the method of claim 8 in which, the extent of

aggregation for each application in the packets that include aggregated information for more than one application is dependent on an indicator of priority for information exchange associated with each application. (col. 6, line 34-44, "An exemplary data structure of the TLPDU 210 is shown in more detail in FIG. 4. The TLPDU 210 contains a field 222 for storing one or more flags such as a request type flag. Also, the TLPDU 210 contains a field 224 for storing a session number or client identifier. A field 226 stores packet sequence number information, while a field 228 stores the TLPDU size information. The optional field 226 is useful in reassembling the packets into a predetermined sequence, when more than one transport is used. The field 228 provides more information on the TLPDU size.")

Therefore, it would have been obvious to one of ordinary skill in this art at the time the invention was made to implement the teachings of Gopalakrishna into the system of Doviak because, as stated by Gopalakrishna, "The protocols discussed above significantly reduce the number of operating system communication calls. Correspondingly, the number of communication calls necessary to send and receive a given number of network packets between the source system (concentrator) and the target system (server) processes across the network is also reduced due to packet aggregation. The resource requirements of the server process will be reduced proportional to amount of average aggregation measured. The reduced number of communication calls needed in the Server will improve the scalability of the server in a client-server architecture. For small sized packets, packet aggregation helps improving the network bandwidth due to the reduced packet/frame header overhead at the

transport or lower layers. Moreover, in networks with large MTU (Maximum Transmission Unit) aggregating small packets reduce communication latency."

5. Claims 11 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doviak et al. (hereinafter Doviak) (US 6, 198, 920) in view of Inoue et al. (hereinafter Inoue) (US 2005/0132049 A1).

Referring to claim 11,

Doviak teaches a method (Fig. 30) comprising:

at a device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks."), opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection based on a type pf the first connection (col. 34, line 19-55, col. 36 , line 26-34, col. 33, line 14-41, "As noted above, the Network Interfaces 214 provide connections to various types of networks. These networks may be wired (for example Public Switched Telephone Network 58), or wireless (for example Cellular Digital Packet Data (CDPD)). The following non-limiting list includes networks that may be interfaced to the Router

200 by the Network Interfaces 214A-D: private voice radio including conventional and trunked radios (e.g., using MDC 54), Cellular Digital Packet Data (CDPD), Spread Spectrum (e.g., direct sequence and channel-hop), GSM, GPS receiver, satellite transponder, RDI (Ericsson) interface, AMPS, RAM Mobile (Mobitex), RS232, RS485, Angel (AT&T), Asynchronous Transfer Method (ATM), Integrated Services Digital Network (ISDN), public switched telephone network (PSTN (POTS) telephone network), Ethernet, Ardis, Personal Communications Services (PCS), and any other network which is either transparent or operates using a specific protocol.

The specific protocols to the above-listed networks are implemented in the Network Interfaces 214A-D. These protocols may be very different, and therefore incompatible with each other. Additionally, a translation device may be provided in each Network Interface 214 to translate between IP and the particular network protocol. By providing such a translation device, the Application or Device 52 can use IP data regardless of the particular network the Application or Device 52 is actually using.");

at the device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife

studies, etc., necessitating the use of multiple Networks."), opening a second connection to the server (col. 34, line 19-55);

selecting from the opened connections including the second connection, one or more connections to be an active connection (col. 34 through col. 35, line 43, Doviak in reference to Fig. 30 as stated above and in col. 34, line 19-55, "The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; **if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health.** The above interrogation process may be accomplished by monitoring a timer tick (provided by the switch microprocessor), which instructs the Network Availability 210 to query each Network Interface 214. When the timer tick occurs, the Network Availability 210 function interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.

The Network Availability 210 of each Network Interface 214 is determined in a manner specific to the particular interfaced Network. For example, if the Network is CDPD, the Network Availability 210 interrogates the network to determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received

Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. For example, in the NovaTel CDPD Network Interface a RSSI of -100 dBm will provide for good data transmission qualities. Thus, if the Network Availability 210 function queries the NovaTel CDPD Network Interface for the RSSI, and the response is -110 dBm, then the signal is too weak for error-free transmission, and therefore cannot be used at this time. This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be.");

communicating information configured for the information exchange protocol that was established for the first connections using the active connection; (col. 36, line 26-34, (col. 34, line 19-55, col. 36 , line 26-34, col. 33, line 14-41, "As noted above, the Network Interfaces 214 provide connections to various types of networks. These networks may be wired (for example Public Switched Telephone Network 58), or wireless (for example Cellular Digital Packet Data (CDPD)). The following non-limiting list includes networks that may be interfaced to the Router 200 by the Network Interfaces 214A-D: private voice radio including conventional and trunked radios (e.g., using MDC 54), Cellular Digital Packet Data (CDPD), Spread Spectrum (e.g., direct sequence and channel-hop), GSM, GPS receiver, satellite transponder, RDI (Ericsson) interface, AMPS, RAM Mobile (Mobitex), RS232, RS485, Angel (AT&T), Asynchronous Transfer Method (ATM), Integrated Services Digital Network (ISDN), public switched telephone network (PSTN (POTS) telephone network), Ethernet, Ardis, Personal

Communications Services (PCS), and any other network which is either transparent or operates using a specific protocol.

The specific protocols to the above-listed networks are implemented in the Network Interfaces 214A-D. These protocols may be very different, and therefore incompatible with each other. Additionally, a translation device may be provided in each Network Interface 214 to translate between IP and the particular network protocol. By providing such a translation device, the Application or Device 52 can use IP data regardless of the particular network the Application or Device 52 is actually using.");

monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections to determine whether to open one or more additional connections close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection. (Doviak in reference to Fig. 30 as stated above and in col. 34, line 19-55, "The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health. The above interrogation process may be accomplished by monitoring a timer tick (provided by the switch microprocessor), which instructs the Network Availability 210 to query each Network Interface 214. When the timer tick occurs, the Network Availability 210 function

interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.

The Network Availability 210 of each Network Interface 214 is determined in a manner specific to the particular interfaced Network. For example, if the Network is CDPD, the Network Availability 210 interrogates the network to determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. For example, in the NovaTel CDPD Network Interface a RSSI of -100 dBm will provide for good data transmission qualities. Thus, if the Network Availability 210 function queries the NovaTel CDPD Network Interface for the RSSI, and the response is -110 dBm, then the signal is too weak for error-free transmission, and therefore cannot be used at this time. This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be."

Additionally, Doviak's teaches at col. 34, line 56-61, "The User Configuration 208 block is used to define user configurable parameters by which the Router Core 204 selects the "current Network" and the "next Network". The Router parameters may include the date and time (e.g., yr-mo-da, hh:mm:ss), and the Network Interface 214 installed in each of the internal slots of the Router 200.", and at col. 35, line 37-44, "The

User Configuration 208 function provides the user with the capability to instruct the Router 200 how to select a particular Network. These metrics may include, but are not limited to: which Network is connected to which Router port, time of day and date, priority (switching sequence) of each Network, cost per packet of each Network, and preferred default Network."

Doviak elucidates the claim limitations as follows:

monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections to determine whether ("Network Availability 210 function interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.", **Note:** Interrogation determines the status of each network interface 214, as such is monitoring, according the user configuration, as such a predetermined set of parameters corresponding to one or more characteristics of the active, that is "current network" and "passive connections" that are not active but being continually interrogated per the user configuration.) to open one or more additional connections close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection. (This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be.")

Doviak fails to teach the information comprising a command causes the server to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device.

Inoue teaches the information comprising a command causes the server to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device. (Abstract; storing them in the cache server cache until requested by client).

Therefore it would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Doviak and Inoue because they both deal with network communications between a client and server. Furthermore, the teaching of Inoue to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device would result in a more rapid response to future requests by caching material that it is anticipated will be requested in the immediate future.

Referring to claim 47,

Doviak teaches the method of claim 45 in which the information comprises a command for a module on the server (col. 30, line 35-48).; and fails to teach the method comprises effecting the command by contacting a remote server, receiving a reply from the remote server and effecting a response without transmitting the reply to the device.

Inoue teaches the information comprising a command causes the server to contact a remote system, receive a reply from the remote system, and effect a response

without transmitting the reply to the device. (Abstract; storing them in the cache server cache until requested by client).

Therefore it would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Doviak and Inoue because they both deal with network communications between a client and server. Furthermore, the teaching of Inoue to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device would result in a more rapid response to future requests by caching material that it is anticipated will be requested in the immediate future.

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(10) Response to Argument

I. Grounds of Rejection I - Rejections of claims 1-7, 9,19, 20, 22-25, 27-32, 38-45 and 48

Claim 1 and its dependent claims

Appellant's argument:

Doviak fails to teach or suggest the claimed "monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections to determine whether to open one or more additional connections; close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection." **(page 10 of 25 of Appeal Brief)**

Thus, the determination of which network to use in Doviak is based on predetermined user configured parameters and is not based on the claimed monitored parameters associated with active and passive connections. **(page 10 of 25 of Appeal Brief**)

Further, selecting the available network in Doviak is performed based on "User Configured parameters 208" and not based on the claimed "monitoring a predetermined set of parameters." **(page 11 of 25 of Appeal Brief)**

Doviak has a set number of installed available networks that the Decision process 206 can select from. Nowhere does Doviak teach determining whether to open or close connections (See, e.g., Doviak at FIGS. 29-30.) " **(page 11 of 25 of Appeal Brief**)

Further, the claimed features require "monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections to determine whether to open one or more additional connections; close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection." Thus, the claimed monitoring requires the determination on all four decisions. Nothing in Doviak can reasonably be construed to anticipate these monitoring features. **(pages 11 and 12 of 25 of Appeal Brief)**

Examiner's response:

1. It must be noted that the Appellant has considered Claim 1 as being the representative of other independent claims 7, 19, 23, 28 and 45.

2. Examiner, accordingly, would also like to note that "It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064."

3. Also must be noted is that claim 1 does recite:

a) the opening of first connection as "at a device, opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection", **and** the opening of a second connection as "at a device, opening a second connection to the server", **further not requiring** "establishing an information exchange protocol for communicating on the second connection.", and

b) "other connections as passive connections" mandating more connections than two "open" connections.

As such, the claim construction compelled the Examiner to further discern the claim as follows:

When claim 1 recites the phrase "**other connections as passive connections"** preceded by "selecting, from connections including the second connection, at least one connection to be an active connection, the claim **insists that there exists more connections than two**, so called, "open" connections, as recited by the claim, "the first connection" and "the second connection" since the claim specifically recites that selection of "at least one connection to be an active connection" occurs "from connections including the second connection." In other words, if the "included second connection" is selected as being the "at least one connection to be an active connection", then only "the first open connection" would be left as "other connection"

and the claim would have recited “other connection and not “other connections.” But, claim recites "**other connections”.**

Therefore, the connections among **“other connections”** that are not so called, “open” connections, that is connections other than two "open" connections, are also the connections that are afforded as to be “selected” as “at least one connection to be an active connection.”

Also, the "other connections” cannot be passive connections until they are selected to be as such as the claim recites.

Thus, the “other connections” can never be **only** the “open connections”, and /or “ passive connections ” but they are all “passive connections” **only** after the selection.

Therefore, Examiner had discerned that when the claim recites “opening a connection” , the claim means “activating the connection” through the selection.

This fact is substantiated by the later limitation of the claim **which specifically uses the word ““change”,** as the claim recites “**change** the selected active connection as a passive connection and **select one or more of the passive connections as the active connection”. Please note that a plurality of the passive connections can be active connections. Therefore, claim’s reciting of “opening a first connection to a server” and “opening a second connection to the server” is thus activating more than one connection. This also implies that “closing the one or more opened connections” is selecting the active connections to be "passive connections."**

Based on the above stated discernment of claim 1:

Doviak teaches at Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. "

Thus, a portable device with Router 200 implemented within it is a device.

Doviak further teaches at col. 34, line 18-55, "The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health. The above interrogation process may be accomplished by monitoring a timer tick (provided by the switch microprocessor), which instructs the Network Availability 210 to query each Network Interface 214. When the timer tick occurs, the Network Availability 210 function interrogates each Network Interface 214 as noted above. The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.

The Network Availability 210 of each Network Interface 214 is determined in a manner specific to the particular interfaced Network. For example, if the Network is CDPD, the Network Availability 210 interrogates the network to determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. For example, in the NovaTel CDPD Network Interface a RSSI of -100 dBm will provide for good data transmission qualities. Thus, if the Network Availability 210 function queries the NovaTel CDPD Network Interface for the RSSI, and the response is -110 dBm, then the signal is too weak for error-free transmission, and therefore cannot be used at this time. This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be."

Here Doviak teaches "current network " is "active connection.". Doviak also teaches that "Network Availability" periodically interrogates each installed Network Interface 214 in the Router 200. **Each installed network includes "current network" (active connection) and the networks other than "current network." (passive connections.)**

The Interrogation of each network interface includes evaluation as to:

a. "determine if the Network Interface 214 is installed; if the Network Interface 214 is properly configured and functioning properly; if the Network Interface

214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health."(col. 34, line 21-26);

b. "determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. (col. 34, line 41-45)

c. determine this, including, but not limited to: Received Signal Strength Indication (RSSI), Clear to Send (CTS), Channel Clear/Channel Ready, and Transmit Grant.(col. 35, line 53-57).

d. additionally, "The User Configuration 208 function provides the user with the capability to instruct the Router 200 how to select a particular Network. These metrics may include, but are not limited to: which Network is connected to which Router port, time of day and date, priority (switching sequence) of each Network, cost per packet of each Network, and preferred default Network."(col. 35, lines 37-43).

Doviak further teaches at col. Col. 36, line 26-29, "The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36."

Thus, Doviak **not only teaches** "user configuration 208" but also teaches "Network availability 210", both providing "a predetermined set of parameters, as indicated in **a-d** above, corresponding to one or more characteristics of the current

network (one or more active connections) and the networks other than current network (one or more passive connections).

Thus, Doviak teaches "monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections."

Doviak further teaches at:

col. 34, line 32-36, "The status of each Network Interface 214 is then passed to the Decision process 206, which determines what the "next Network" will be if the result of the interrogation indicates that the "current Network" is experiencing transmission problems.";

col. 34, line 5—55, "This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be."; and

col. 36, line 6-15, "The Decision process 206 uses the User Configuration 208 parameters defined above to determine the specific criteria for each slot, to be used when deciding if the current Network is to remain the current Network, and if not, what the next Network shall be. Once the decision process 206 has made a tentative decision to switch to another Network (i.e., the next network is to become the current network), it checks the Network Availability 210 to ascertain if the Network is actually installed, configured, on-line, and in good health. For example, if the current Network is configured as priority #3, and the Network Availability 210 of the priority #2 Network updates to, for example, "installed, configured, on-line, and in good health", then the

priority #2 Network becomes the next Network. The Decision process 206 will instruct the Switch 212 to switch the priority #2 Network to the current network. Should the Decision process 206 decide to change Networks, it conveys an instruction to the Router Core 204 by instructing the Router Core 204 what the next Network Interface 214 is to be"

Thus, Doviak teaches monitoring a predetermined set of parameters corresponding to one or more characteristics of the active and passive connections to determine whether to open one or more additional connections; close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection.

II. Grounds of Rejection II - Rejections of claims 8, 10, 21, 26, and 46

Claims 8 , 10, 21, 26 and 46

Appellant's argument:

However, Gopalakrishna suffers from similar deficiencies as Doviak. In particular, Gopalakrishna fails to teach or suggest the claimed opening two or more connections and assigning at least one of the connections as an active connection. In addition, Gopalakrishna fails to teach or suggest the claimed, "determine whether to open one or more additional connections; close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection." **(pages 13 of 25 of Appeal Brief)**

Examiner's response:

Examiner never cited Gopalakrishna for "determine whether to open one or more additional connections; close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection."

III. Grounds of Rejection III- Rejections of claims 11 and 47 Claim 11

Claim 11

Appellant's argument:

For at least reasons similar to claim 1, claim 11 is allowable over Doviak. **(pages 14 of 25 of Appeal Brief)**

Examiner's response:

Please refer to the Examiner's response to Appellant's argument for claim 1 above.

Appellant's argument:

While various communication paths are described, similar to Doviak, Inoue fails to teach or suggest the claimed opening two or more connections and selecting at least one of the opened connections as an active connection and the rest as passive connections. Further, Inoue fails to teach or suggest the claimed, "determine whether to open one or more additional connections; close one or more of the opened connections; and change the selected active connection as a passive connection and

select one or more of the passive connections as the active connection." Inoue is simply silent as to these and other claimed features. **(pages 14 of 25 of Appeal Brief)**

Examiner's response:

Examiner never cited Inoue "determine whether to open one or more additional connections; close one or more of the opened connections; and change the selected active connection as a passive connection and select one or more of the passive connections as the active connection."

Appellant's argument:

"Further, the message in Inoue does not cause the cache servers to contact the mobile device. In contrast, the message merely receives the connection location of the mobile device and to cache the "WWW information." Also, even if the cached information could somehow reasonably be construed as the claimed reply (which is not conceded), the information is made available to the mobile device in Inoue (i.e., "enable faster accesses to the selected WWW information by the mobile computer.") In contrast, claim 11 recites that a reply is not transmitted to the device. **(page 15 of 25 of Appeal Brief)**

Examiner's response:

Inoue teaches in the Abstract that "The cache servers can be managed by receiving a message indicating at least a connected location of a mobile computer in the wireless network from the mobile computer, selecting one or more cache servers located nearby the mobile computer according to the message, and controlling these

one or more cache servers to cache selected WWW information selected for the mobile computer, so as to enable faster accesses to the selected WWW information by the mobile computer."

Here Inoue clearly teaches a command (by receiving a message indicating at least a connected location of a mobile computer in the wireless network from the mobile computer) (that causes the server to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device (selecting one or more cache servers located nearby the mobile computer according to the message, and controlling these one or more cache servers to cache selected WWW information selected for the mobile computer.) Inoue thereby teaches storing them in the cache server cache until requested by client, i.e. effect a response without transmitting the reply to the device.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

(Note: the Examiner has made an earnest effort to properly address each and every Appellant's arguments of the appeal brief. In any event or reason if more explanation is needed, the Examiner will gladly provide as necessary).

Respectfully submitted,

/Ashok B. Patel/

Primary Examiner, Art Unit 2456

February 10, 2009

Conferees:

/Bunjob Jaroenchonwanit/

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/Kenny S Lin/
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